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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,954	07/01/2002	Masatoshi Kanaya	020287	4537

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EXAMINER	
PARSLEY, DAVID J	
ART UNIT	**PAPER NUMBER**
3643	

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/069,954	KANAYA ET AL.	
	Examiner	Art Unit	
	David J Parsley	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 9-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 9-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 07 February 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Amendment

1. This office action is in response to applicant's amendment dated 12-22-03 and this action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to how the fluorescent light emitted from the shell residue is more than the fluorescent light emitted from the shellfish flesh since the irradiating light is only claimed as being directed onto the shellfish flesh portion and not the shell residue.

Claims 10-14 and 16-17 depend from rejected claims 9 or 15 and include all of the limitations of claims 9 or 15 thereby rendering these dependent claims indefinite.

Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. It is unclear to whether the light as described in line 3 of claim 11, line 3 of claim 12 and line 2 of claim 13, is the irradiated light or the fluorescent light.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to how the light source, detecting means and means for removing the shell residue are connected or how they communicate to each other to form the apparatus as claimed.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to how the CCD camera is connected or how it communicates to the other components of the claimed apparatus.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to how the filter is connected or how it communicates to the other components of the claimed apparatus.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,067,328 to Harrison or JP Patent No. 01-202241 to Hayata et al.

Referring to claim 9, Harrison and Hayata disclose a method of detecting and removing a shell residue left in a shellfish flesh portion comprising, irradiating a light onto a shellfish flesh portion after finishing a shell-stripping work on the shellfish, thereby emitting a fluorescent light more from the shell residue than from the shellfish flesh portion, detecting the fluorescent light emitted from the shell residue and removing any residual shell – see for example columns 1-3 of Harrison and figures 1-14 and pages 1-6 of Hayata et al.

Referring to claim 15, Harrison and Hayata et al. disclose an apparatus for detecting and removing residual shell left in a shellfish flesh portion, the apparatus comprising a light source – see column 2 of Harrison and – at 32 of Hayata et al. for irradiating light onto a shellfish flesh portion – see column 2 of Harrison and – at 14 of Hayata after finishing the shell-stripping work on the shellfish, thereby emitting a fluorescent light more from the shell residue than from the shellfish flesh portion, a detection means – see column 2 of Harrison and – at 36-44 of Hayata for detecting a fluorescent light emitted from the shell residue, a means – see columns 2-3 of Harrison and – at 52-56 of Hayata for determining if there is left a residual shell of the shellfish on the stripped shellfish on the basis of information obtained from the detection means, means – see columns 2-3 of Harrison and – at 59 of Hayata for removing any residual shell on the basis of information from the determining means, – see for example columns 1-3 of Harrison and figures 1-14 and pages 1-6 of Hayata.

Referring to claim 13, Harrison and Hayata disclose the light is an excitation light – see for example columns 1-3 of Harrison and pages 1-6 of Hayata.

Claims 11-12, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrison.

Referring to claim 11, Harrison discloses the shellfish flesh portion comes from shrimp wherein the light has a wavelength of not more than 400nm – see for example column 2.

Referring to claim 12, Harrison discloses the shellfish is a crustacean – see for example column 1 and the light has a wavelength of less than 400nm – see for example column 2.

Referring to claims 14 and 17, Harrison discloses the fluorescent light is detected through a filter, and wherein the filter absorbs the irradiated light and passes the emitted fluorescent light – see for example column 4 lines 3-9.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison or Hayata as applied to claims 9 and 15 above, and further in view of U.S. Patent No. 5,902,177 to Tessier et al.

Referring to claims 10 and 16, Harrison and Hayata et al. do not disclose an image of the shellfish flesh portion is taken by a CCD camera. Tessier et al. does disclose the image is taken by a CCD camera – see for example columns 10-15. Therefore it would have been obvious to

one of ordinary skill in the art to take the method of detecting shellfish with unstripped shell of Harrison or Hayata et al. and add the image taken by a CCD camera, so as to make the method more effective and accurate in that the light can be accurately read with an image being quickly produced.

Claims 11-12, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayata as applied to claim 9 above, and further in view of Harrison.

Referring to claim 11, Hayata does not disclose the shellfish is shrimp and the wavelength of the light is less than 400nm. Harrison does disclose the shellfish flesh portion comes from shrimp wherein the light has a wavelength of not more than 400nm – see for example column 2. Therefore it would have been obvious to one of ordinary skill in the art to take the method of Hayata and add the shellfish being shrimp and the wavelength of the light being less than 400nm of Harrison, so as to allow for the quality of the freshness of the shellfish to be accurately determined.

Referring to claim 12, Hayata does not disclose the shellfish is crab and the wavelength of the light is less than 400nm. Harrison does disclose the shellfish flesh portion comes from crab wherein the light has a wavelength of not more than 400nm – see for example columns 1-2. Therefore it would have been obvious to one of ordinary skill in the art to take the method of Hayata and add the shellfish being crab and the wavelength of the light being less than 400nm of Harrison, so as to allow for the quality of the freshness of the shellfish to be accurately determined.

Referring to claims 14 and 17, Hayata does not disclose the fluorescent light is detected through a filter with the filter absorbing the irradiated light and passing the emitted fluorescent

light. Harrison discloses the fluorescent light is detected through a filter, and wherein the filter absorbs the irradiated light and passes the emitted fluorescent light – see for example column 4 lines 3-9. Therefore it would have been obvious to one of ordinary skill in the art to take the method or device of Hayata and add the filter of Harrison, so as to allow for the emitted light to be more easily and accurately detected.

Response to Arguments

5. Regarding claims 9 and 15, the Harrison reference US 3067328 discloses detecting and removing a shell residue left in a shellfish flesh portion as seen in column 2 lines 48-54 and the claims of column 4 where in column 2 it is described that the shrimp is irradiated with a portion of the shell attached to the shrimp and in the claims the shell is described as being removed from the shellfish.

Further, the Hayata reference JP 01-202241 does disclose the fluorescent light is emitted more from the shell residue than the flesh portion of the shellfish in that it is inherent that the shell produces a more intense emitted light when a fluorescent light is put on its surface than the flesh portion of the shellfish. See the Harrison reference in column 2 where it is described that the shell produces a more intense emitted light than the shellfish.

Regarding claims 10 and 16, the CCD camera is not used to take the x-ray pictures but is used to replace the x-ray to take the images of the shellfish.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication from the examiner should be directed to David Parsley whose telephone number is (703) 306-0552. The examiner can normally be reached on Monday-Friday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon, can be reached at (703) 308-2574.

Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600

3/12/04